

The Knowledge Management Role In Transferring The Muslim Heritage In Golden Age As A Foundation Of Modern World: A Literature Review Of “Bayt El Hikmah (The House Of Wisdom)”

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Abstract: Nowadays, many organisations are moving toward considering knowledge management as an essential part to help in working and achieving the organisation goal and to ensure its sustainability and development. It's because they understand that the tangible assets are not the only valuable asset but also all the intangible assets should be managed to improve the organisation performance. From another point nowadays many people all over the world did not know about the rich Islamic heritage which was the foundation of our modern world. From this context we can see how the house of wisdom which was a great scientific academy and a library which include scholars from all the world and from different religions under the management of Muslims Caliph and their vision for creation, innovation and motivated all people to create and invent and he support them by the necessary technologies and suitable environment. Thus, the concept of knowledge management and principles was applied in house of wisdom since thousands of years and it has proven its success and it helped to raise and support the original inventions and to transfer it from a generation to another. This paper, represent a solution to the universities and especially the Islamic universities to promote their rankings and optimizing their state, by the merge between the Islamic heritage and knowledge management to result a successful organisation such as bayt el hikmah and to build a new generations who are aware of the greatness of Islam and of muslim scientists and who have the mind set of innovation and sharing knowledge.

Keywords: Knowledge management, house of wisdom, Islamic heritage, Islamic universities, innovation, sharing knowledge, knowledge transfer.

I. INTRODUCTION

The destruction of barriers that prevent the evolution of the organisation and specially mention the universities is the approach adopted by the successful one by enhancing the share of knowledge, the debates and open discussions, support the researches and researchers, the suitable environment for innovation, the use of current technology to contribute and help in the development, the combination between the top-down and the bottom-up by the recognition of the importance of each member role in the organisation to get the better result and achieve the organisation goal.^[1]This is done by learning, understanding, and analysing the past and plan for future to have a better present real results. This is the main focus of having the integration of knowledge management in the organisation is to make it a learner and a smart organisation.^[2]In fact, if we look at the case of house of wisdom we will find that this scientific organisation had adopted this approach and apply it which help in its success.

II. BACKGROUND

Human lived at the beginning of life in a primitive way taking advantage from his skills and adopted in his life collecting fruits and hunting animals and then learn agriculture which enabled him to stability in groups and tribes, and then discovered the fire. Then he realized that he should have to change and develop methods in collecting fruits, hunting animals, fishing and agriculture, and that to continue the struggle for survival and superiority over other creatures and evolved his life as a result of his many discoveries. From that accumulated his knowledge about the environment that he lives in it resulting in a change in the pattern of his life to be easier and better and become blessed with a lot of security and stability. Thus, the search and the development of knowledge it's what make the human live in a better situation and environment in addition of some other factors. That's what was adapted by the ancient Muslims, to develop their environments and to understand the creation of Allah and the miracles in every little detail in the earth. They have learn from the people before them, they was giving a great value to the science and learning. From that way of thinking, scientific academic was created to make the research and knowledge well managed and shared among scholars and students to spread it all over the world.^[3] They was working with commitment and passion to learn. To know and to share what they understand and this is the focus of knowledge management. Unfortunately, many wars and fights has taking place and the first thing that was destroyed was the scientific academic, because they understand that to kill a nation, kill its knowledge^[3]. But, the knowledge because it was shared and spread, many scholars and Scientifics had use it to invent and re-new it in the way to create new innovation that are what constitute our modern world.^[4]

III. PROBLEM STATEMENT

Before more than 1100 years the first scientific academy "bayt el hikmah" or house of wisdom was created in Baghdad by the Abbasid caliph and this huge academy contained more than million book in the time of Caliph Haroon el Rashid.^[5] This period of history house of wisdom represented a lighthouse for sciences, researches, innovation, creation in a very civilized and sophisticated environment of harmony and share of knowledge among scholars and students from all over the world from different religions and cultures.^[6] In that time the notion of knowledge management was not mentioned, but in fact if we look at their activities and plans we will see that were used the concept of knowledge management by using the people, the processes and the technologies that they had in that time to share , re-use, create and innovate new knowledge. During this golden age of the scientific renaissance under the management of caliph and Muslim scholars, the foundation of our current modern world was created by the most important innovations of Muslim scholars in science, math, physics, and astronomy.^[7] Unfortunately, over the years Muslims had been left this rich significant heritage which had been used and involved to be the foundation of the European scientific renaissance, then the industrial revolution until creating the modern world that we are living in. The knowledge management had play a significant role to transfer this valuable innovations created in bayt el hikmah by sharing, re-using it to create new knowledge and inventions.

However, in the current time were Muslims are considered as absent from the global world image of creative and innovative peoples and nations^[8], the reality is that all the new technologies and sciences that we have come from the Muslim heritage created in an academics such as bayt el hikmah in the golden age that has been well used and managed there after by European to build the new modern world.^{[9][10]} As Muslims, with this rich history of innovations, creations and as shareholders in the development of our world, we need an awakening and recognize that we have not managed the knowledge that we have to keep this heritage and develop, reuse and share it. Thus, as Muslim nation there is an important need to do many changes and transformations, in Muslims priorities and how they can use the knowledge management to take benefit, re-use and innovate to contribute in the world development. Furthermore, the issue is that the Islamic organisations and even universities does not do the sufficient work to make this transformation and the result of this is their absence from the top of best universities rankings. In fact, we should understand that by education start the basic of changes.

This research aim to show and highlight and compare how the knowledge management has been used since many years ago as a concept to make the scientific academy of bayt el hikmah be able to be developed rapidly, ensure its sustainability and overcome the barriers in the academy that constitute a challenge for the caliphs^{[10][11]}, and how knowledge management as processes, tools and technologies can be used in different organisations and universities to take benefit from the Muslim heritage in golden age in addition to all the new development added to it as a way to make an adjustment and optimization of the current Muslim scientific position and presence worldwide.

IV. LITERATURE REVIEW

The life of Arabs and Muslim scholars throughout history have been linked to libraries and whenever flourished libraries flourished life of the nation Arab scientists and appeared like Ibn al-Nafis, Ibn al-Haytham, IbnSina and many others, so the library profession is not the way to work only, but is the repository of scientific heritage of all mankind, scholar who does not know its history and what left us generations of scientists and offices will benefit only a few, where the libraries Men literature, Scientific and Cultural Forum, contrary to what some believe that the ancient libraries do not have the elements of a modern library, while the library of the House of Wisdom opened its doors for researchers to internal and external reading and access on the shelves and break down traditional barriers in obtaining the required information as well as the most convenient ways to follow great methods built on its basis the modern libraries such as reading lounge room for study and a section for copying, binding and Translation, Authorship, maps, drawings and other.^[12]

The wealth numerous stored in the library of the House of Wisdom deserves special mention, while these ancient treasures it is the best witness shows the role of Islamic civilization and cultural radiance over other nations in the history of humanity^[12]

In terms of administrative organization of the library, we want to emphasize that it was not at least at that time just a library. It was an Academy emulates the Library of Alexandria^[13], which is no doubt that it affected by it. Consequently, this academy must had been divided into several sections or departments as we mentioned before such as:

- A. Section of the Library
- B. Department of Research and authoring
- C. Department of copies and binding

In The House of Wisdom was an accurate system driven by it^[13]. There were workers in side and they were all paid salaries by job, there are authors and translators, etc...

From that we can understand the importance of library which is the storage of knowledge and where the organizational knowledge exists. One of the examples that can clearly show us how much library and organizational knowledge are playing a very important role to improve the popularity and prestige of organization in societies, and how they could manage the process to get benefits from it, is the International Islamic University in Malaysia. While they were believe in that in creating the KM, the most important thing is how the knowledge itself could be accessible and available by the user in proper way. However, the classification based on IIUM' library system is not enough to accommodate the knowledge management implementation in exploiting the full potential of richness resource in the IIUM environment that refer to library classification system based on library congress classification scheme. so *Igel & Numprasertcha* (2004) suggestion about the richness of knowledge comes from a lot of resources can be stored, embedded or represented in an university as any of six distinct kinds of resources: participants' knowledge, culture, infrastructure, knowledge artifacts, purpose, and strategy can be considered by to add in the IIUM library system.^[14]

After The definition of resources exist in the IIUM environment, so they can utilize the resource effectively. They have a system thinking approach with holistic views that maintains the social issue that can support them much as there were already number of system application used currently and complexity of institution existed. It will strengthen the process and analyzing the resource resulted in improving the performance and capabilities of the ongoing strategy.^[14]

IIUM RESOURCES	IIUM EXAMPLES
Participants'	Complaint, opinion, student's activities, club, suggestion, survey, people, journal, thesis, article, contribution, workflow, achievement, camp
Artifacts	e-meeting, documentary, books, patents document, memo, business plan, product, news& announcement, email messages, conversation, pictures,
Culture	Organization value, work ethic, bonus, belief, norm, principle,
Strategy	Interactive helpdesk, portal, learning management system, administrative application, data syndication, application sharing, profiling, e-learning, seminar, workshop
Infrastructure	Repository, Internet and Intranet Services, Office Automation, Webmail, Website, Sultan Haji Ahmad Shah Mosque, IIUM Library, expert service, discovery service,
Purpose	Vision, mission, objective, goals, organizational chart, problem

CLASSIFICATION OF IIUMRESOURCES^[14]

After classify the existing resource, they could utilize them interchangeably to upgrading the knowledge itself. Therefore, the level of organizational knowledge depends much toward the individual and corporate. The level of knowledge will improve the popularity and prestige of organizations in societies. The problem is how they manage all knowledge resource efficiently and could be utilize by people effectively. Meanwhile, R&D resource also should be looking at in IIUM; it could be used to support KM directly to prevent redundant process and bias in data collection instead of run separately. It is important to identify the approach and resource first with in depth insight; then the acquisition and integration process of the R&D resource into KM will improve the quality of KM. The collaboration process with other external resources in generating knowledge is one of the roles that R&D could come up after. Library as the main organization that frequently relate to management resource could be the dominant factor in determine success in classification phase.^[14]

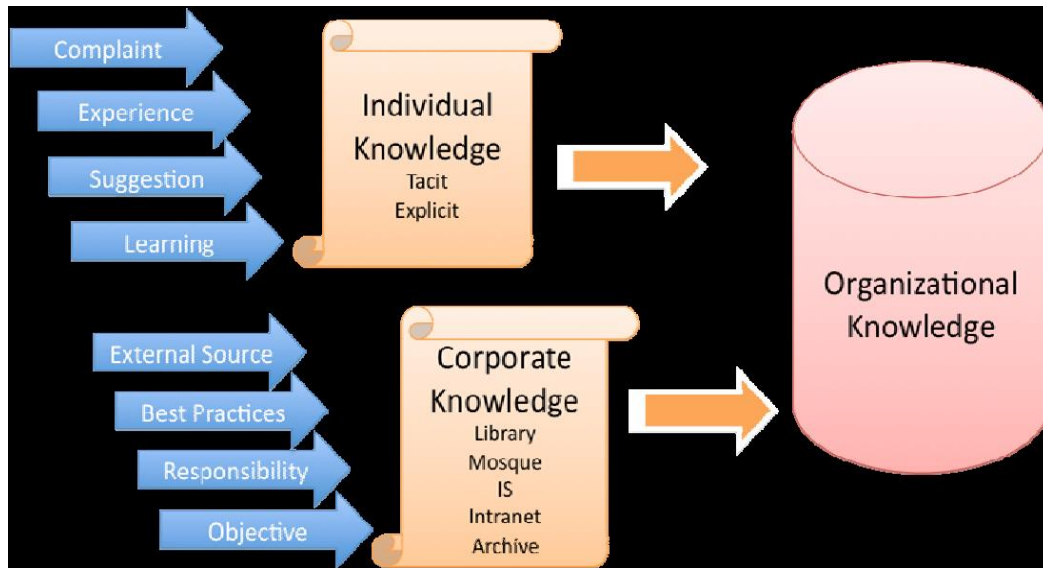


Figure 1: [14]

The Abbasid period was the beginning of flowering of Islamic civilization flourished Arts and Sciences, and cared caliphs in science and knowledge, and was among those caliphs al-Mansur, who translated in his period books on medicine, astronomy, geometry, literature, and that was the books kept in succession Palace in Baghdad, even Harun al-Rashid came arose and take out the manuscripts and valuable books that are stored in the palace of the Caliphate and put them in a luxury house he called (Treasury of Wisdom) or (House of Wisdom) in recognition of its mission.

Harun al-Rashid was fond of science and knowledge, to the extent that he accepts the tribute (JIZYA) as books! Instead of submitting it in form of money, and this tells us over the care of Harun al-Rashid on good books and his passion to possess it, and nothing can show us the fondness of Harun al-Rashid with good books more than the number of books in his period in the House of Wisdom while it reached Million Books.

Caliph was collecting in the House of Wisdom (the Dar al-Hikma's) finest scientists and scholars and philosophers and astronomers, and urged them to argue and debate and has led them freedom in dialogue, discussion, and after research in-depth and the exchange of ideas throughout the day each team was creating a book of them supports and endorses the doctrine as saying. Within Caliph the freedom of mentality in this councils in a wider border, while was each idea or opinion is a subject of debate even heretic's opinions. While undoubted the community was associated with Islam closely in all the spiritual and social affairs, whereas sultan of mind became over sultan of religion. However all of that its real motive was the sophistication of life's mentality in this days.^[15]

From that there is a question that we can suppose: **What are the objectives from the establishment of the House of Wisdom?**

There are three most important objectives:

- 1- The great prosperity of civilization: through scientific encouragement and commitment to the Islamic state to perform its duty in this field and the enthusiasm of the nation on science, and open hearts to Islam doctrine and worship, and the law and morals. [16]

- 2- Maintaining the World Heritage salvaged from the yard: A good example of this is the literature of Galen, when translated hundred message from his letters to the Syriac, and thirty-nine other message, by Hunayn ibn Ishaq.[16]
- 3- Very careful to maintain the books and workbooks, which translates or classified: it has been associated with the emergence of the scientific movement and activity in Baghdad to maintain the books and workbooks, while scientists in the Islamic state were depositing copies of their books in the House of Wisdom. [16]

Therefore we can clearly see that The House of Wisdom environment was a perfect place to get and create and share knowledge, since we said that The House of Wisdom was same as any universities in this time so also university environment is a perfect place to apply all the principles and methods of knowledge management. It is because:

- universities usually possess modern information infrastructure^[17]
- knowledge sharing with others is natural for lecturers^[17]
- The desire of students is to acquire knowledge from accessible sources as fast as possible. Universities have to live up to expectation of the global society.^[17]

They must adopt and adapt good practices that emanate from ICT and globalisation. Traditionally, the main functions of universities are to create and disseminate knowledge and these are done through their research and teaching activities as well as their outreach programs. Metaxiotis and Psarras outline three major missions of universities: ^[17]

- Teaching – to prepare students to become successful lifelong learners.
- Research – to expand the frontiers of human knowledge and to promote creativity.
- Service – to serve on communities and in leadership positions within the university and in professional organisations, and to participate in outreach activities that serve the local, national, and international communities.

The love of knowledge Basic Instinct consistent humans and authentic motivation to create and develop icons in all forms, Language (both written and spoken) in addition to other expressive forms which we use it addition to the updated ones such as computer languages and the language of digital communication through space.

We can look from an overview to the knowledge as a process of growth and development and steadily progress and continuously towards universally mind and effectiveness of mankind settled its deep belief in the role of science and leadership of human civilization.

Knowledge has gone through several major phases; each stage of it formed a big turning point in the history of science. Whereas the ancient civilizations such as the ancient Egyptian, Phoenician, Assyrian and other contributed and played an important role in the establishment of cognitive activities and in creating big scientific visualizations , especially in engineering, mathematics, chemistry, astronomy, and that scientific activities characterized most often with practical application. However it did not attempt to form a scientific community vision i.e. transfers of advanced knowledge at that time to a social nature through science and education and educational institutions. ^[18]

Arab-Islamic scientific thought came as part of a major and important episode in the evolution of scientific knowledge through processes of accumulation and growth, to create a pattern scientifically integrated to some extent ^[18]. Then it collected between the both sides practical and theoretical sides and it used the necessary scientific approaches to scientific research and the diversity of its production of knowledge in various fields. What concerns us in the meditation that stage of the history of science is its ability to formulate fully and mature scientific perceptions, provided science in what Greek civilisation has failed ^[18]in such as experimental description and direct study of natural phenomena. Historical circumstances have allowed then the transmission of those attributes to the European scientific world to establish its major scientific renaissance. While that is the major problem in the history of science, while much of historians of science and philosophers did not realize the idea of cognitive communication between human civilizations. ^[18]

What about the quality of knowledge in universities? And how can Knowledge management ensures the quality of knowledge?

Knowledge management is one of the contemporary intellectual developments that have been proposed in the first instance as frameworks and new entrances to the study and understanding of the regulatory business and quickly turned into practice more suited to the rapid changes in the higher education institutions environments, whereas it helps to manage the intellectual capital and the head of its human capital, as well as manage learning content and invest in

knowledge assets to enhance the ongoing of the organizational creativity. It also earned the ability to achieve its objectives, and the shift towards the knowledge economy, which focuses on investing in intellectual and knowledge assets than on tangible physical assets. ^[19]

While knowledge management contains planning and preparation to form and to develop the cognitive balance in the academic institution and guide the flows of the academic institution and facilitate its employment in all their activities, and continuing work on develop it, and update and extract latent from it. Thus, it is planning, organizing, monitoring, and coordination of knowledge and assets associated with the head of intellectual capital, and processes and capabilities and personal and organizational capabilities in way can accomplish the greatest possible of positively influenced by the results of the competitive advantage leading to the knowledge that inherent the members of the university community and adapt according to their abilities ^[19].

V. LITERATURE FINDINGS

From what we read about The House of Wisdom (Bait Al Hikma) we can clearly understand how much it was a great place to get knowledge and create knowledge and share knowledge. They applied the most important points in knowledge management such as Knowledge creation and knowledge sharing. Furthermore we noticed that how they were managing knowledge and grow it by methods and system that they were applying. Knowledge management one of the main things that in The House of Wisdom was focus on, they were understanding well how much it is important for them. Whereas there were workers inside and they were all paid salaries by job, there are authors and translators, etc....., while this system and methodology is the same as what is applying in universities now and in any company. The main goal of knowledge management within libraries to get benefit from the available knowledge that may help universities librarians execute their tasks more efficiently and effectively.

VI. RESEARCH FRAMEWORK

In fact, when we look at the most successful universities currently we will find that none of them is an Islamic university. Thus the question is WHY?

Furthermore, if we look in the world-wide successful organisations, or those which are working to optimize their situations, we will see that there is a huge focus on the integration of knowledge management in the organisation to well manage the intellectual capital and all the resources. It's because, those organisation start to recognise that any change should start by the people and human, then the knowledge and innovations of this human can be well used by some processes and technologies. In fact, when we did the comparison and projection of what makes the best universities all over the world now successful, is that they really know how to apply knowledge management and it's well guided. In fact, that's exactly what was doing bayt el hikmah before thousands of years, and from this well governance and an open environment for innovation, creation, discussions, and sharing of knowledge, the basic of scientific inventions had been created.

That's why come the idea, to try to resolve the problem of the slow development and improvement in Islamic universities and their retreat in the international universities ranking.

By doing the mix between the Islamic heritage and inventions and as a reference the successful academy of bayt el hikmah which can enrich and help to do improvement in the current universities to be better, and also the employment of knowledge management by focusing on the three principals of people, processes and technology. Thus, we believe that this mix between the Islamic heritage and the successful examples in that period with the application of knowledge management can help and cause a radical transformation in the organisations and especially in Islamic universities because they have the same base and global aim as bayt e hikmah.

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قُلْ سِيرُوا فِي الْأَرْضِ فَانظُرُوا كَيْفَ بَدَأَ الْخَلْقَ ثُمَّ اللَّهُ يُنشِئُ
النَّشْأَةَ الْآخِرَةَ إِنَّ اللَّهَ عَلَىٰ كُلِّ شَيْءٍ قَدِيرٌ

Sahih International

Say, [O Muhammad], "Travel through the land and observe how He began creation. Then Allah will produce the final creation. Indeed Allah, over all things, is competent."

In this Ayah from Surat the spider, Allah want us to think, innovate and research from all what has been done and created before until today to take lessons and better understand , thus we will be able to better act and develop our self and situation.

In the figure below, we see the proposed framework and model to achieve and attain the target of successful Islamic university, by taking as a foundation the criteria and base of success of house of wisdom, golden age heritage and the features of the most successful universities worldwide in our days, analyse those criteria and features then add and combine it with the three principles of knowledge management which are the people , processes and technology to achieve and result a successful Islamic university that can be able to compete educationally and scientifically worldwide.

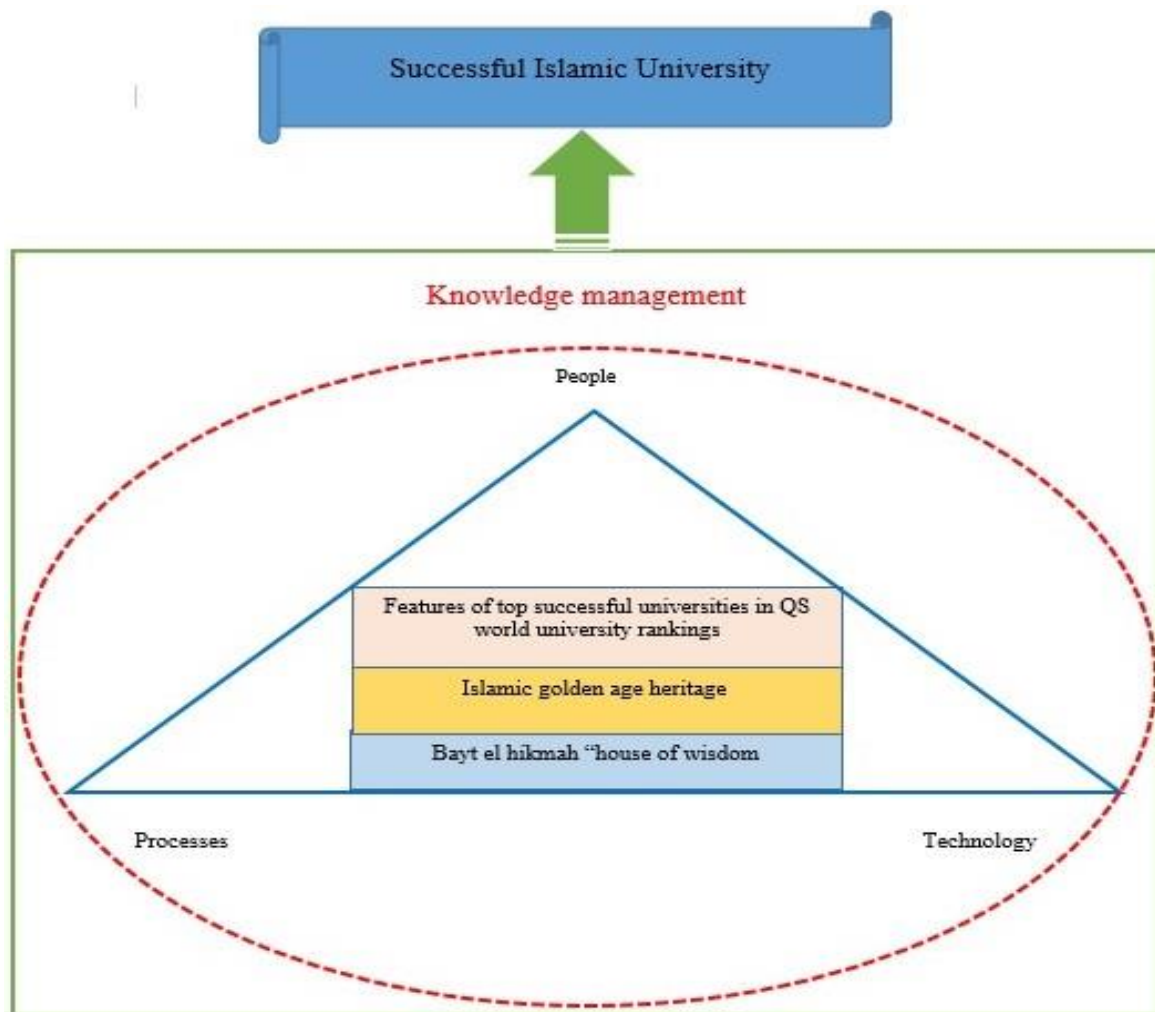


Figure 2

VII. CONCLUSION

Nowadays many initiatives and research had been done to prove the significance of knowledge management to enhance the performance of organisations and universities. In fact, the application of a successful knowledge management in a university is based in many points such as the presence of a leader who guide and motivates the people in the organisation and who know the value of knowledge and allow and provide them the suitable environment to well innovate and create, this was the case of Caliph in bayt el hikmah who was a leader and make all his long term strategy in a real applicable fact and he gives reward to scholars to motivate them and because he know the value of knowledge. Furthermore, the culture of sharing knowledge is what make an organisation knowledge management successful, was also applied in bayt el hikmah by the open environment of sharing ideas and the seminars of debates between scholars to raise the critical thinking and create w new knowledge and ideas by sharing the knowledge that they had, and that's what many organisations try to apply now in order to be successful. Also, the knowledge management cannot achieve its goal without an aligned working equally on the people, processes and technology to ensure that the change can be done.

To conclude, the smart organisation is the learner one that take lessons and experience from the past and mix it with the development and new ideas of presence. Thus, the contribution and mixture between the sciences, successful experiences from Islamic golden age with good application of knowledge management by using this heritage and the last developed techniques can be a solution to rise and optimize the situation of Islamic universities worldwide.

VIII. FUTURE WORK

After doing this research we have realized that many work and outcomes are expected to follow it:

- Giving more attention in the way of application of knowledge management in organisations especially universities.
- Analysis the current situation at universities to compare and extract where the weaknesses that can be improved by the solutions and mixture are proposed in this research.
- Doing a detailed research about the organisational and operational functions of the successful academies such as bayt el hikmah and others to take as a pattern and model that organisations can learn from it.
- The inventions and successful cases and academies in the golden age of Islam can be integrated in the educational curriculum even from the school, to rise a new generations that know how Islam has contribute in the development of the world and they can learn from it and capturing the knowledge and the share of knowledge and the importance of innovation from those great examples of our Islamic heritage.
- Many seminars and conferences can be done especially in the level of Islamic universities to spread the thinking and intellect to how to mix our great Islamic heritage with the present to build a better future.
- The mixture between the knowledge management and the Islamic values and those great inventions and heritage can be the best way to ensure the commitment in the application of knowledge management and can simplify the challenge and reducing the time that can take the deployment of a knowledge management strategy and culture.

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